2 Review of the Relevant Literature

This section outlines literature relevant not just to visitor surveys in the Santa Monica Mountains National Recreation Area, but also to international examples of such surveys and to the broader field of leisure research. Reviewing pertinent literature enables the findings of the SMMNRA survey to be situated in the broader context of leisure research. This facilitates comparison with international data and enables the consideration of solutions to similar problems that have been experienced in trail management within national parks in other countries.

Park User Attitudes, Values and Benefits

People develop different conceptions of recreation based on the attitudes and values they hold concerning the role of nature and parks in their lives. These attitudes and values shape the way in which individuals use park space such as the SMMNRA, from the activities they pursue to their interactions with other users. While specific attitudes towards parks and their use may vary, it is clear that many of the ways in which people value and benefit from parks transcends national and cultural boundaries. These benefits range from increased personal psychological well-being to an enhanced sense of local or national identity.

User attitudes and values

A review of the park use literature reveals a range of attitudes and values held by park visitors, including aesthetic, recreational, social, and environmental values. In general, such values and attitudes vary between those that are anthropocentric, i.e., primarily oriented toward the benefits of parks for their users (individually or for society collectively), and those that are more biocentric or ecocentric, i.e., oriented toward the ecological importance of parklands for non-humans. However, most people, across all demographic lines, value a range of park features and benefits from park use. Moreover, the presence of nature within parks, and visitor appreciation for all other park aspects or activities is often contingent on the natural setting.

Research into aesthetic values suggests that park users value "natural" landscapes within parks, expressing a preference for such features as varied terrain and topography, water features, diverse vegetation and the presence of tree cover (Gold 1986; Yuen 1996; Burgess, Harrison and Limb 1988). An equally high value was placed on natural landscapes and settings by recreational users in a study of forest preserve trails in Chicago (Lieber and Allton 1983). More extensive studies of park users, however, conducted by social researchers in England (Burgess, Harrison and Limb 1988) and Singapore (Yuen 1996) found that individuals do not take an exclusive view of parks as a place for passive appreciation of nature and, indeed, value parks for the range of recreational and social opportunities they provide in a natural setting. These studies found that attitudes included aesthetic appreciation and recreational enjoyment, as well as a desire to feel close to nature, whether in a nearby neighborhood park or a remote wilderness park.

The influence of age

Younger park users also hold many of these same values, but at the same time they also demonstrate unique attitudes towards parks and recreation. National Park Service researcher F.P. Noe and his associates conducted extensive research into conceptions and attitudes toward recreation, often focusing on younger park users. One of these surveys (Noe, McDonald and Hammitt 1983) of inner tube river floaters in the southeast United States found that individuals in groups comprised of young friends were most likely to engage in risk taking behavior. Another study of white, middle class suburban high school students by Noe (1978) found that youth value opportunities for active recreation and sociability, termed "playfulness," and the chance to personally experience nature, termed "solitariness," in their experiences in National Parks. Ulrich and Addoms (1981) confirmed similar attitudes toward parks in a study of college students, who valued the opportunity for sociability in a nearby park, as well as the chance for passive relaxation in a natural setting.

J. Byrne

Plate 3: Orienteering Group, Malibu Creek State Park

Park benefits

There are a range of benefits that may be derived from parks. These include psychological benefits, material and economic benefits, health and fitness, identity formation and lifestyle. Some of these benefits are reviewed here in greater detail.

Psychological benefits

Many park users when interviewed in other surveys expressed the belief that parks have important psychological benefits for them as a place to find relaxation and relief from stress (Yuen 1996, Burgess, Harrison and Limb 1988; Ulrich and Addoms 1981). In addition, Ulrich and Addoms (1981) found that the mere presence of a park had a positive

psychological effect on nearby residents, even if they were not park users. A more in-depth examination of the psychological benefits of parks in reducing stress has been made by Ulrich and his associates in a series of psycho-physiological studies, where physiological indicators such as breathing rate and blood pressure were used to determine a subject's psychological response to particular activities. In one such study, subjects were found to relax more quickly when exposed to images of natural rather than urban settings, after exposure to a stress producing video (Ulrich et al. 1991). In a similar psycho-physiological study, Tarrant, Manfredo and Driver (1994) found that memories of past outdoor recreation experiences, both active and passive, had stress relieving effects. These findings have particular relevance for the SMMNRA as a natural area located in close proximity to an urban area, as many trail users may be seeking to escape the stress of the city and suburbs.

Material and economic benefits

In addition to enhancing personal wellness, greenspace such as parks and greenways also has material and economic benefits. For example, John Crompton, an academic planner specializing in recreation, park and tourism sciences, has undertaken a substantial comparative literature review examining property owners' perceptions of the impact of greenway trails upon property values. Crompton (2001) found that in all cases, studies into the relationship between greenways and property values, ranging across places as different as San Francisco, Seattle, Santa Rosa, Maryland, Denver and North Carolina, found that they had either a neutral or positive affect. This work was corroborated by Crompton (2001) in his assessment of the impact of parks on property values, in which he found that parks have very real material benefits for adjoining owners and also significantly increased the economic value of their properties.

Identity formation

Another benefit of parks is their ability to provide a sense of identity and place on a local, regional, and even national scale. In a study of neighborhood parks in Singapore, Yuen (1996) examined how parks and park activities become the focal point of local identity. On a larger scale, Mels (2002) has traced historical links between Swedish conception of national parks and nature and Swedish national identity. Mels also examined how the Saami people of northern Sweden have found their traditional lands incorporated into a broader conception of Swedish identity, often to the exclusion of their native culture. A similar situation is found in the United States, where the National Park Service has had to mediate between Native American groups and rock climbers who have very different conceptions over the identity and use of Devils Tower National Monument (Dustin and Schneider 2001).

As a major park and wilderness area in the Los Angeles metropolitan area, the SMMNRA has the potential to play a significant role in fostering a sense of identity that incorporates the region's natural resources. Given the importance of parks for identity formation, and the strong emotions reported by users towards park space, it is unsurprising that conflicts may occur between users of the same park space, where those users have very different ideas of how that space should be used.

User Conflict

The proximity and accessibility of the SMMNRA to the large and diverse urban citizenry of metropolitan Los Angeles is perhaps its greatest asset. The challenge for managing this open space is that visitors bring many different attitudes and values towards parks and recreation, which can lead to conflicts between different types of users. Other research has shown that differences in attitudes toward recreation are at the heart of many conflicts between users in parks, a situation sometimes exacerbated by over-crowding. Many of these conflicts are rooted in cultural differences, an issue of growing importance in an area as diverse as the Los Angeles metropolis.

Conflicting user activities

The literature generally reflects two explanations for user conflict within parks: user preferences and users' attitudes. Insofar as preferences are concerned, given the wide variety of recreational uses present in urban wilderness areas and parks in general, it is not surprising that conflicts can arise between different user groups and individuals. This is particularly the case for shared spaces such as recreational trails. Some conflict has been attributed to differences in preferences between users. For example, an assessment of the preferences of hikers, joggers, bikers and cross-country skiers in the forest preserve system of the Chicago metropolitan area found that, while all users preferred similar terrain and landscape features, each group of users had different, and often incompatible, preferences for recreational facilities and trail management (Lieber and Allton 1983). Other commentators have posited attitudes as the underlying source of conflict.

Users' attitudes

Conflict may stem from the presence of multiple user groups with different attitudes toward recreation. Jackson and Wong (1982) argue that the most intractable of this type of conflict is that between mechanized and non-mechanized recreational activities, as they are based on inherently different conceptions of recreation. Their study of urban dwelling snowmobile riders and cross country skiers in Alberta found that while snowmobile riders enjoyed adventurous, sociable recreational experiences, skiers felt that obtaining solitude and tranquility was the purpose of recreation. The authors note that such conflicts are marked by asymmetrical attitudes among the two groups of users, with cross-country skiers expressing a strong dislike of encounters with snowmobile riders, while snowmobilers mainly registered indifference toward skiers. It is interesting to note that a similar concern emerged in the SMMNRA survey regarding attitudes towards mountain bikers. Both Lieber and Allton (1983) and Jackson and Wong (1982) concluded that designating separate trails and facilities for specific types of uses might prove necessary if a compromise between users could not be reached.

Crowding

It is uncertain to what extent crowding on trails affects the recreation experience of users or leads to user conflicts. Stewart and Cole (2001) confirmed the findings of earlier studies, including Kuss, Graefe and Vaske (1990) and Manning (1999), that most

trail users perceive only a very slight negative effect on the quality of their experience as the frequency of encounters with other groups or individuals increases. However, this study was based on a survey of hikers in the Grand Canyon backcountry and may not adequately reflect the more congested conditions that are present in urban areas, such as the SMMNRA. Studies of crowding at popular sites in national parks indicate that once a certain level of crowding is reached, visitors become increasingly dissatisfied with the quality of their experience (Flint 1998). Likewise, the vast majority of longtime users of popular Acadia National Park were found to employ some sort of coping strategy in response to increasingly crowded conditions. These strategies included rationalizing the changes as improving their own experience, altering their perception of their own activities within the park, or simply reducing use (Manning and Valliere 2001).

In regard to park facilities other than trails, crowding appears to be less of an issue. For example, Heywood (1993), found that groups in crowded picnic areas in Southern California were largely tolerant of others walking through their own picnic site, an attitude especially prevalent among users of Latino or Hispanic ethnicity. Given the diverse population of the metropolis, the SMMNRA survey should offer further insight into the extent of differences in activity preferences and attitudes held by members of different racial and ethnic groups.

Cultural conflicts

In a study of urban wilderness areas in Southern California, including the SMMNRA, Hester, Blazej and Moore (1999) concluded that the changing demographics of park users had led to many emerging cultural conflicts. The authors categorized users as "traditional" and "non-traditional" users based on culture and park activities. By their definition, traditional users tend to be white, affluent and enjoy small group recreational activities such as hiking and biking, while non-traditional users are usually lower income Hispanic and African-American users and participate in large group, concentrated activities such as picnicking. Their study notes that traditional users frequently object to non-traditional users and uses of recreation areas, often suggesting that non-traditional uses have a negative ecological effect on park areas. However, the authors assert that no scientific evidence for this belief exists and instead conclude that cultural and social misunderstandings and fears were at the root of conflicts between the two groups.

Cultural conflicts are not simply a concern in the United States, as demonstrated by Wong (1996), who argues that opposition to tourist development in an Australian national park was at least partially based on prejudice against Japanese tourists, rather than ecological concerns. Despite these suggestive studies, there is a notable paucity of research on cultural conflicts between different groups of park users. Further research is clearly needed for a more complete understanding of user activities and potential conflicts in the SMMNRA and other park spaces.

Park User Demographics

The United States has experienced a demographic shift, especially in its urban centers, over the last 30 years. Not only has the ethnic composition of America's cities

changed to reflect increased diversity, but also, as the baby-boomer generation has aged and life spans have increased due to improvements in medical science, the median age of Americans has shifted upwards. These shifts translate into changes in the demographics of park users, especially for parks at the urban-wildlands interface.

Much of the park research surveyed in this chapter reflects to some degree these demographic trends. In addition, it focuses on the underlying demographic and socioeconomic reasons for differences in park use rates and patterns, especially differences due to class, race/ethnicity, age, and gender. Although social and environmental justice implications of demographic change are beginning to be addressed in park literature, these are still in an early stage of development. Such issues are addressed later (under the Equity, Justice, and the National Park Service section of this literature review).

Situated in Los Angeles, one of the most ethically diverse cities in the United States, the SMMNRA has the potential to attract users with varied ethnic backgrounds, ages, and socioeconomic status, who have a range of land ethics, attitudes toward nature, and leisure preferences. With increased diversity of park visitors comes a variety of land ethics (and associated behaviors towards both other trail users and non-human species and their habitats) that may differ from those held by park management, making dialog between visitors and park management critical in order to effectively manage park resources and reduce user conflict. The purpose of this section is to review past studies of SMMNRA user demographics, and then examine demographic components of more general research on recreational patterns, with a view to informing the present research.

Prior studies of SMMNRA user demographics

To date only three published studies on the demographics of Santa Monica Mountains National Recreation Area users have been conducted. Lee (1980) divided up the SMMNRA into discrete use areas, grouped these areas into types, and aimed to determine existing use levels at these various sites. Some raw data was reported, although very little of it was numerical – use was simply reported as low, medium, or high. No statistical analysis was performed. Numerical data were obtained from management but the validity of the data is uncertain, since estimates were made by numerous methods, including "eyeball estimates" and counts of parked cars. Information was also obtained from unstructured interviews with field personnel and unobtrusive observation of visitor behavior. Data were collected during one of the lowest usage periods of the year (December 1979 - March 1980), limiting their overall representativeness and applicability.

One year later, Mark and Holmes (1981), field researchers for the National Park Service, published a report titled *Potential Visitor Use of Urban Minority and Handicapped Populations in the Santa Monica Mountains National Recreation Area.* Their project, conducted entirely away from the field, included interviews with leaders of 132 ethnic and community organizations in order to gather information about these groups' interests, concerns, and needs in terms of outdoor recreation availability. The investigators' purpose was not to collect statistics for inference but to gain a strong sense of concerns,

needs, and perceptions of different groups. The organizations studied were not selected randomly but were actually recommended to the researchers by members of the particular ethnic/social groups. Although this may have introduced potential bias, it was a good way to ensure "quality control" – to insure that the organizations interviewed would be active and actually composed of people of the social group they purported to represent. The researchers aggregated, analyzed and reported specific response data and recommendations by ethnic/interest group and extensively documented responses of different groups to the open-ended questions on their perceptions, needs, and concerns.

This study thus did not generate statistical inference but it did result in a very extensive and candid collection of recommendations and impressions from different groups, which could be valuable in increasing awareness and access to the park facilities. The study was particularly notable, because it contacted advocacy groups, enabling the researchers to obtain some of the most well-articulated renditions of the issues affecting different groups. It also emphasized the needs and views of disabled users – a particularly important aspect since any study reliant upon a random sample of visitors would be unlikely to include a significant number of physically disabled persons from which to draw inferences.

The most recent and comprehensive SMMNRA study was Littlejohn (1993), a parks researcher for the NPS based at the University of Idaho. It consisted of a mail survey conducted on a maximum-traffic festival day at Paramount Ranch and then at a variety of sites the following week. A substantial amount of data was collected and displayed: visitor group sizes, types, visitor ages, ethnicity, state or country of origin, frequency of visits, usual days of visit and usual time of visit, length of stay at site, activities, knowledge about park, sources of park information, other sites visited, forms of transportation, reasons for visiting, and visitor views on quality and importance of different programs and services. This study was also the most extensive published collection of visitor perceptions and behavior information conducted in the SMMNRA, but its largely descriptive nature precluded the testing of hypotheses concerning the dominant factors shaping SMMNRA visitor use patterns or factors explaining differential accessibility to the SMMNRA. Further, the study was predicated upon mail-back responses, which could have biased the sample. Indeed, the report recommended conducting an on-site survey where respondents fill out the questionnaire in situ.

Race/ethnicity and class[1]

A number of different theories have been proposed to account for differential use of recreational facilities across demographic subgroups, particularly those differing by race/ethnicity. These include marginality theory, ethnicity theory, and broader post-structural approaches that recognize the interaction of race, class, gender, and other individual characteristics, as well as the structural and institutional factors that shape recreational activity patterns.

Marginality theory

Marginality theory postulates that neither race nor class per se explain use patterns, but rather discriminatory side effects of one's physical characteristics, including job discrimination, discriminatory social interactions, and other circumstances whose effect is to minimize the resources and opportunities available to members of these groups and therefore decrease their use of recreational sites (Floyd et al, 1994). Under the banner of discrimination, there are two schools of thought: the first is the pure discrimination model, and the second is the institutional racism model (Floyd and Johnson, 2002). The discrimination model assumes conscious, intentional, clearly definable, and eradicable discrimination. In contrast, institutional racism approaches posit a more subtle, subconscious, structurally embedded and difficult-to-isolate phenomenon that pervades society, shapes socioeconomic status and opportunities, and influences recreational behavior.

Ethnicity theory

A competing theory is ethnicity theory, which instead holds that differences in leisure patterns and behavior are caused by cultural factors. Differences in the values placed on recreation and different attitudes toward nature are seen as explanations for leisure preferences and use patterns (Floyd et al., 1994). Washburne (1987) gave memorable expression to this view in his statement that there was a "black subculture" that explained their different leisure preferences and behaviors. Floyd (1998) noted that whereas both of these theories are useful, they remain underdeveloped, and both need to do a better job of explaining how race/class/culture actually translate into less opportunity, interest, and or/access to outdoor recreation.

1 It is important to note that the terms race and ethnicity are problematic. Perhaps the single most trenchant issue is that these terms are often used pejoratively in the wider social milieu and can be a source of stigmatization. Early literature on nature, the environment and leisure was replete with racist connotations, where people of color were seen to naturally prefer human-modified settings whilst whites could appreciate so-called pristine nature (Hurley, 1995). Although previous surveys have followed race categories defined by the US Census Bureau, such as African-American (or Black), whites (or Anglos), and Hispanics, their results and conclusions are not without concern. The present survey also employs the US Census Bureau categories, but it is important to note that it provides respondents with the opportunity for self-identification as Latino/a, in reference to people who may previously have been identified as Hispanic and includes a race category of Black/African-American (refer to Appendix 1 for more information about the survey instrument).

Race

Several recent empirical studies have explored the ways in which race/ethnicity and class are related to recreational activity patterns. For example, several studies of leisure preferences indicated that African-Americans, whites and Hispanics have different notions of leisure activity (Hutchison, 1987 and Baas, Ewert, and Chavez, 1993). The first studies to notice this phenomenon assumed that race was the most important factor in determining the differences observed. Findings indicated that African-Americans tended to spend leisure time in more developed (urban) surroundings while whites put more of a premium on undisturbed nature (Stamps and Stamps, 1985). Additionally, those surveys concluded that Hispanics put more emphasis on the social dimension of leisure activity than whites, participating more heavily in group sports and picnicking, for example (Hutchison, 1987 and Baas, Ewert, and Chavez, 1993). However, these studies tended to uncritically accept the notion of leisure preference, without accounting for deeper social, economic and cultural explanations – such as racial discrimination in housing allocation, which affects access to recreation opportunities.

New directions

Much recent empirical research suggest that neither marginality theory or ethnicity theory adequately account for the variety of different leisure preference and activity patterns observed among people from different racial backgrounds. Instead there has been a move toward the development of explanatory models that seek to integrate a wider variety of causal factors into their explanatory schemas. For example, historical research suggests that cultural attitudes toward nature and outdoor areas may be ingrained from an earlier history of discrimination, with marginalizing experiences embedded in collective memory becoming incorporated into a group's culture (Lee et al. 2001, Virden and Walker 1999). Downey (1998) takes this idea further, arguing that treating race and class as separate indicator variables falsely distinguishes between two phenomena that are intimately connected, and therefore this practice should be abandoned. Floyd et al. (1994) strongly advocate that efforts be made to model the actual patterns and mechanisms of past and present discrimination to get a better understanding of how these translate to different leisure preferences and recreational behaviors among different racial groups.

Race and class

Several commentators have begun to investigate the interaction between class and race in determining leisure preferences. For example, economic differences, and consequently access to livable neighborhoods, may play a more important role in leisure preferences, park access and recreational activities than has previously been theorized (Woodard, 1988). Floyd et al (1994), for example, addressed the issue of the relationship between race and class differences in leisure preferences. Floyd et al's (1994) findings departed from those of their predecessors (particularly Stamps and Stamps, 1985 and Pesavento-Raymond and Kelly, 1991 – cited in Floyed et al), in showing more similarity than difference in the recreational preferences of blacks and whites in the same social class. They found that both race and class mattered.

Floyd et al (1994, 169) reported that in some ways, the results of their study corroborated earlier findings. African-Americans were seen to be more involved in team sports, fitness, social activities and voluntary associations and less involved in outdoor leisure pursuits such as camping and hiking. However, they also found considerable intra-group variation, noting that for middle class respondents, camping and hiking were the preferred leisure activities, irrespective of race, whereas for the poor and working class respondents, hunting and fishing were consistent ranked higher. Floyd et al (1994) concluded that although these results corroborated the findings of earlier researchers (Yancey and Snell, 1976; McPherson, 1977), their results "did not offer compelling evidence for the superiority of either the marginality or ethnicity perspective" (p. 170). They called for a re-conceptualization of the "…relationship between race, class and leisure" because these factors "exhibit an interactive effect on leisure preferences" (Floyd et al, 1994, 171).

Floyd (1998) further developed his critique of marginality and ethnicity explanations in a special issue of the *Journal of Leisure Studies*. He noted that both perspectives suffered from a lack of critical appraisal of the monolithic constructs of marginality, race and ethnicity. He challenged theorists to think more critically about the socially constructed and highly contested nature of the categories race and ethnicity and continued to call for a re-conceptualization of the relationship between class, race and ethnicity, pointing to emerging work on assimilation as a guide.

Assimilation

Carr and Williams (1993), working with the USDA Forest Service, concluded that the Hispanic population was not nearly as monolithic as had been initially assumed by leisure researchers. Surveying four urban - wildlands interface parks in the Los Angeles area in 1993, they found that by dividing race into ancestral group membership, generational status, and acculturation, intra-racial differences could also be found. More acculturated Hispanics tended to share many more preferences and views with whites than with less-acculturated Hispanics (Carr and Williams, 1993). The effects of acculturation on Hispanics were corroborated in another study through a telephone survey of households in Central and Southern California in 1998 (Shaull and Gramann, 1998).

Just as earlier surveys concluded that there are noticeable intra-racial differences in the Hispanic population, later surveys have started to examine other possible factors that could contribute to the observable differences between whites and people of color. This debate has been particularly animated with regard to comparisons between the leisure experiences and recreation patterns of whites and African-Americans. Commentators such as Floyd et al (1994), Floyd (1998) and Floyd and Shinew (1999) have attempted to break away from explanations based upon marginality or ethnicity. Unfortunately, to a large extent their efforts have been pervaded by an undercurrent of "Anglo-normativity", and largely ignore both socio-cultural and socio-economic determinants. At worst this kind of thinking risks racist essentializing, and at best fails to acknowledge the contributions of post-structural and post colonial theorists.

Interracial contact

Continuing to break away from traditional approaches to theorizing race and leisure, Myron Floyd continued his search for alternative explanations, this time teaming up with Kimberly Shinew from the Department of Leisure Studies at the University of Illinois. Floyd and Shinew (1999), through their analysis of inter-racial recreational patterns, asserted that the divergence of leisure preferences between African-Americans and whites is attributable to varying interracial contact. Drawing on the work of Blau (1977), Bourdieu (1977) and Burch (1969), they noted that many theorists have attribute differences in leisure preferences and recreational patterns to the interactions of historical patterns of racial discrimination coupled with class distinctions and the predilections for particular leisure activities that accompany socio-economic status. Thus, people of a similar class will be more likely to share leisure preferences, regardless of their race, due to shared norms, conventions and behaviors (cultural capital) that are possessed by virtue of being members of that class, and which structure and differential access to resources, including recreational opportunities (Floyd and Shinew, 1999: 362-367).

However, Floyd and Shinew (1999) questioned these assertions, postulating that greater interracial contact is responsible for convergence in leisure pursuits. They argued that interracial contact enhances the opportunity for social interaction across racial boundaries, and in the process exposes individuals to the norms, behaviors and "frames of reference" of others (Floyd and Shinew, 1999: 379). They concluded that interracial contact will lead "African-Americans' preferences…to become more like those of whites rather than vice versa". The result is a convergence in leisure patterns. Unfortunately in their struggle to challenge entrenched paradigms in leisure studies, Floyd and Shinew (1999) fell into the familiar trap of Anglo-normativity that underpins much leisure research.[2] We return to the topic of race and ethnicity in our discussion of equity in outdoor recreation. First however, we make a short departure to consider issues of age and gender and then briefly examine environmental attitudes, as these issues are central to conceptions of equity.

Age and gender

Leisure research has recently expanded from questions of race and ethnicity to encompass the broader concerns of age and gender in shaping leisure patterns. As with race and ethnicity, these issues are often imbricated and complex. For example, not only is an increasing proportion of the US population aged 55 and over, a phenomenon that is shaping contemporary patterns of recreation, but the active lifestyles and health of this group have also improved. Mature Americans are more active than were previous generations and more interested in what Dychtward, terms "intensely gratifying recreation" (McCormick, 1991).

A study of local neighborhood parks conducted by Godbey and Blazey (1983), found that many seniors utilize urban parks to engage in much the same activities as younger

[2] Ironically this was one of the criticisms leveled by Floyd (1998) against those who pursued explanations based upon conceptions of marginality and ethnicity.

visitors. Walking, socializing, enjoying nature, and exercising were commonplace activities amongst seniors at urban parks in Atlanta, Boston, Chicago, Houston, and San Francisco. Additionally, Cordell, et al. (2002) speculated that, while active recreation such as mountain biking, surfing, and team sports are currently very popular, the increasing median age of the population will eventually shift recreation emphasis over to less physically challenging activities such as walking and hiking.

Lee et al. (2001) conducted a telephone survey of a stratified sample of 3000 Texas residents in 1998 to determine the individual and interaction effects of four factors on leisure participation, including age. One limitation of this study is that it was area-specific, thus failing to take account of regional variations. Results showed that age was the most important factor in determining outdoor recreation participation levels.

A recent study by Payne et al. (2002) employed telephone interviews with 800 Cleveland residents to determine if and how race, age, and residential location affected, among other things, the perceived need for more parkland, preferences for desired function of that land, preferences for style of recreation, and level of existing visitation to local parks. The study encompassed three psychological variables as well as a behavioral variable, but was limited by the fact that all variables had to be collapsed into dichotomous categorical variables (again, the race category included only black and white respondents). The study also found that although race was the strongest predictor of preference for park land use, age was the strongest predictor of support for additional parkland, as well as the strongest predictor of visitation levels, corroborating Lee et al's 2001 results.

Environmental attitudes

Few studies of cultural diversity and recreation behavior explore the ways in which differential environmental values or attitudes might influence recreation choices. This is despite the fact that race/ethnic differences in environmental attitudes have been documented (Noe and Snow, 1989/90), as well as differences in attitudes toward animals (Kellert, 1984), and that it might be expected that patterns of leisure could be expected to vary with attitudes. Those with stronger biocentric or ecocentric environmental values for instance, may be more likely to participate in nature-oriented outdoor recreation, whereas people with a more anthropocentric orientation make recreational choices that emphasize social interaction, exercise, or mastery over nature. It might also be expected that knowledge of the recreation zones, especially wildlands or coastal areas, could foster appreciation and interest in spending time at such sites, while access to information about recreation opportunities could influence behavior; given differential levels of educational attainment across race/ethnic groups, this could be related to differential recreational behavior, yet no studies have explored this connection.

J. Byrne

Plate 4: Camping – Sycamore Canyon

Cordell, et al. (2002) is one of the few studies to focus on recreation patterns and environmental attitudes. Analysis of the 2000-2001 National Survey on Recreation and the Environment (NSRE) revealed that attitudes were, in fact, related to recreational activities patterns and preferences. Moreover, class was linked to attitudes toward nature. Low-income individuals tended to trust the ability of humans to eventually control nature and exert influence upon it, while high-income individuals tended to have more ecocentric attitudes towards nature-society relations.[3] This suggests that attitudes toward the outdoors, either independent and/or in interaction with income or class, could play a role in understanding patterns of trail use in the SMMNRA. Results presented in ***Section 4*** of this report corroborate this assertion. The majority of respondents to the survey were relatively affluent, and ecocentric attitudes were remarkably prevalent across the full range of SMMNRA user groups. Indeed, the majority of respondents (53.2%) expressed strong concerns for the protection of habitat in the Santa Monica Mountains, with a further 21.6% advocating a balance between habitat protection and recreation. However, the virtual absence of people of color and low income earners from the survey sample raises important questions with regard to the equitable provision of greenspace in Los Angeles, the ability of traditionally disadvantaged user groups to gain access to the National Recreation Area (especially given the lack of public transport options) and issues pertaining to the comparative scarcity of passive recreation opportunities in the inner city.

3 Respondents to the NSRE were asked to react to 10 questions representing the 5 New Ecological Paradigm (NEP) domains--ecological limits, balance of nature, anti-anthropocentrism, rejection of exemptionalism, and ecological catastrophe--using a 5 point scale ranging from 1=strongly agree to 5=strongly disagree.

Equity and Justice in Outdoor Recreation

With unprecedented population growth in urban areas, and shifting demographics of park users at the urban-wildlands interface across many cities, questions of equity and justice have recently received increasing attention within the field of leisure studies. Research in this area suggests that in many cases failure to attend to equity considerations have patterns of recreational services provision that have not kept up with the changing needs of the citizenry. The National Park Service (NPS) in particular has faced criticism for being unresponsive to broader changes in society and for being unrepresentative in its internal structure and employee recruiting (NPCA, 2002). Whilst partly defending such criticism from the perspective of career preferences and salary maximization among people of color, the National Park Service has acknowledged this concern (Roberts and Rodriguez, 2001). The original mandate of the Park Service was captured by President Roosevelt's famous arch that once graced the entrance to Yellowstone National Park when automobiles were first allowed to enter, which read: "For the benefit and enjoyment of the people" (Everhart, 1983). Yet, some commentators asserted that from their inception, National Parks were only accessible to the affluent, able to afford expensive train or stagecoach fares needed to visit remote park locations.

A critical moment in National Park history was the development in the 1930s of the concept of a new kind of public space: a "national recreation area" (Sellars, 1997) that was less single-mindedly oriented toward nature preservation and more concerned with the recreational needs of the public, particularly those who were not wealthy enough to enjoy outdoor recreation opportunities on private property. Another important development was President Lyndon Johnson's Great Society program (Everhart, 1983:69) that focused on accessibility for the economically disadvantaged and the creation of new parks closer to urban centers. The latter goal was realized with the emergence of the first NPS-run national urban park in 1972, when, in the spirit of "bringing parks to people," the NPS opened Gateway Park in New York, followed by Golden Gate National Recreation Area in San Francisco (Everhart, 1983). The Santa Monica Mountains National Recreation Area was likewise created under this "parks for people" movement.

Despite the creation of National Recreation Areas, a large gap remains between the outdoor recreational needs of a fast-changing public and the current status of outdoor recreation facilities and opportunities. Moreover, very few studies of recreation behavior control for geographic accessibility across groups. So, for example, do people of color living in cities visit nearby mountains less frequently because they are more apt to live in central cities situated further from those mountain zones, or because they are more apt to be dependent upon public transport that offers opportunities for visiting urban-proximate wildland areas? The first steps towards ameliorating such problems is the collection of empirical evidence to evaluate the current makeup of park users compared with available data on the demographic composition of the local population, as well as differential rates of geographic access to park facilities.

Environmental justice

One of the greatest challenges faced by the National Park Service was the environmental justice movement. This social movement emerged in the 1980s in response to a civil rights-oriented outcry against racial and class-based discrimination in the exposure to environmental harms such as pollution; the disproportionate provision of government environmental services, environmental policy making and environmental law enforcement; and in low access to environmental benefits such as greenspace (Bullard: 1990, 1993, 1994, 1995, 1999; Bryant, 1995; Laituri and Kirby, 1994; Perhac, 1999; Pollock and Vittas, 1995; Pulido et al, 1996; Pulido, 2000, and Westra and Wenz, 1995). The movement also arose in response to an environmental movement that many poor and minority citizens saw as being elitist, and favoring the preservation of inaccessible nature enclaves over the welfare of less privileged human beings (Di Chiro, 1996).

Environmental justice has been defined as a state whose realization requires the fulfillment of three types of equity: procedural, geographic, and social (Bullard, 1994). While in most cases it has been characterized by protest over the distributive outcomes of government policy, particularly with regard to environmental harms such as pollution, others have defined it with a greater emphasis on procedural justice (Lake, 1996) or newer, feminist-influenced non-distributive models of justice that place primary importance on the processes and power relations that underlie the various distributive outcomes of public policy rather than on the distributive outcomes themselves (Warren, 1999). The movement defined itself as a catalyst for awareness and correction of "unevenness in the distribution of environmental costs and benefits" (Floyd and Johnson, 2002) but in practice, the movement's initial concerns centered mainly around costs – claims of disproportionate siting of toxic facilities and effluents in poor and minority neighborhoods. These claims were corroborated by empirical evidence, which in turn prompted further study into patterns and mechanisms of environmental discrimination or, as it is more often termed, "environmental racism." [4]

The environmental justice movement has recently expanded its concerns to include the disproportionately low availability and accessibility of greenspace (an environmental amenity or benefit) among low-income and minority urban residents. This has been accompanied by a nascent but rapidly growing body of academic literature on recreation equity. Access to greenspace by urban residents has been shown to be a very highly valued mental and social asset, affording a sense of escape from the fast pace of urban life and a place for solitude and contemplation among people who often have very little private space to themselves (Everhart, 1983; Wolch and Wilson, 2002). Researchers have

4 The term "environmental racism" became popular after the 1990 Michigan Conference on Race and the Incidence of Environmental Hazards (Taylor 2000) when it was associated with conscious, deliberate forms of discrimination. However, Pulido (1996) has more recently argued that environmental racism should be seen as an often unintentional phenomenon that has pervaded the social system to such an extent that it can not be neatly identified and extracted. As for use of the terms environmental "justice" versus environmental "equity," which were initially interchangeable, at the 1991 First National People of Color Environmental Leadership Summit, it was decided that the term "justice" was more appropriate because it had broader scope and inclusivity (Taylor, 2000).

characterized and quantified open space/natural resources as benefits in a number of ways, as discussed in the section on benefits in this report .[5]

In 1994 the federal government responded to the demands of the environmental justice movement (and the corroborating findings of numerous researchers) by issuing Executive Order 12898, which formally brought the demands of environmental justice to bear on the recreational and tourism development components of federal land management agencies (Floyd and Johnson 2002). Executive Order 12898 had enormous significance because public lands management decisions affect nearly one-third of all land in the US and approximately 40% of all recreation in the US occurs on federal public lands (Loomis 1993). With the issuance of EO 12898, issues of equity have come to the forefront of the National Park Service's mission. These crucial steps in the evolution of the National Park Service inform this study.

Studies of equity in outdoor recreation

The earliest park user demographic studies documenting lower park access, use, and interest among minority and low-income citizens from an environmental justice standpoint appeared in the late 1980s (Floyd and Johnson, 2002). Since then, several studies have explored unequal use and preferences along dimensions of class, race, ethnicity, age, gender, residential location, and education levels. This section contains an overview of several of the most influential of these studies and their implications for the present research.

A differentiation is evident between psychological and behavioral factors in studies of park use (explicitly noted in Lee et al., 2001). Psychological factors (individual preferences and perceptions) were the sole emphasis at first for a number of reasons, not the least of which was convenience in data collection. Studies of psychological factors avoided the complication of speaking to people on site or asking them to recall detailed information about their past recreational activities. Studies investigating behavioral factors (actual park use activity) have until recently lagged. Yet it is important to note that the two are causally intertwined in ways that have yet to be fully elucidated or acknowledged in any of the studies completed to date. Clearly, park use behavior patterns directly impact perceptions of nature and park preferences, and similarly park use patterns may be explained by preferences that may or may not be related to more easily measurable demographic factors.

Tarrant and Cordell (1999) conducted a study of environmental equity in spatial accessibility of park recreation sites by identifying the socioeconomic characteristics (race, income, heritage, occupation) of census block groups within 1500 meters of the Chattahoochee National Forest in Georgia to see if there was any correlation of specific socioeconomic characteristics with spatial relationship to the park. Statistical analysis revealed that in fact park recreation sites were disproportionately closer to census block groups with higher proportions of lower income residents. This was one of very few

5 For example, Driver developed a model for quantifying both the benefits of natural resource management (1991) and of outdoor leisure activity (1996), while Aldy (1999) examined the distribution of the outdoor leisure benefits in Southern Appalachia.

studies whose findings seemed to challenge the claims of the environmental justice movement. The study did not, however, investigate actual use patterns or attempt any comparison with other, perhaps more urban locations to see whether these results were generalizable or merely anomalous.

Equity mapping

A practical application of the research into equity and justice has been the development of "equity maps". Emily Talen, a former land use planner turned academic, developed an application of geographic information systems (GIS) to map equity in the allocation of greenspace amongst urban residents. At a basic level, equity refers to that which is considered to be fair by society. However, Talen notes that such a conception of equity is problematic because it pivots on the question "fair for whom?" Talen reviews four separate conceptions of equity – equitable distribution in which all members of society receive the same benefits regardless of existing levels of need based on disadvantage; compensatory equity where resources are redistributed to those most in need to mitigate inequalities created by class and race distinctions; demand distribution where the most vocal members of the community are given the most resources and finally market based distribution where those who can afford the most to pay for a service get those resources (Talen, 1998: 24) It was the second conception of equity that Talen (1998) employed in her examination of the spatial relationship between resource distribution (the location of parks) and resource need (when people who most need access to parks live) as a way to "explicitly reveal the distributional choices being made about 'who gets what' (Talen, 1998: 23). Using the City of Pueblo, Colorado as a case study, Talen (1998, 24) developed a technique for mapping a "need-based distributional standard" for park space.

Talen used accessibility to parks as the key determinant in understanding the (in)equitable distribution of greenspace throughout the city of Pueblo. Accessibility was measured based on four parameters – the gravity model where demand for parks falls off at a negative rate with increasing distance, minimizing travel cost, covering objectives – which establish a critical distance for service provision and minimum distance which seeks to minimize inequality by minimizing the distance traveled to access greenspace. She found that the central city had more access to park space, and suggested that this was the result of the trend towards increased private greenspace in the form of private gardens and other facilities such as tennis courts in the suburbs. She also found that greenspace was equitably distributed amongst needy residents within the city.

Sarah Nicholls, who investigates park and tourism-related issues at Texas A&M University, recently utilized the work of Talen. Nicholls (2001) applied Talen's model to issues of accessibility and distributional equity in a study that used GIS to examine the distribution of public parks in Bryan, Texas. Nicholls similarly employed a compensatory or needs based assessment of greenspace, and was specifically interested in testing the application of the National Recreation and Park Association (NRPA) recommendation for a standard of 10 acres of open space per 1000 residents. Nicholls (2001, 211) identified those groups most in need of greenspace access as being: "non-whites, those earning low incomes (approximated by those who rent as opposed to own their home, and whose property or rental value is lower than average), the young and the elderly, and those

residing in more densely populated areas and less likely to have access to a private garden". Nicholls found that the distribution of parks in Bryan was equitable, but accessibility was another matter. Less than 40% of residents were found to have good access to any form of open space. Furthermore, only 12% were able to reach a neighborhood park within easy walking distance of their place of residence. Her analysis thus revealed a "lack of sufficient open space" (Nicholls, 2001: 217).

Building upon the work of Talen (1998) and Nicholls (2001), a recent study by Wolch and Wilson (2002) found that in the city of Los Angeles, a very different pattern of greenspace distribution prevails. Census and local parks data in combination with geographical information systems mapping revealed a disturbing, but not unexpected pattern of lower access to local parks among people of color and low-income residents. This disparity has been exacerbated by unequal allocation of new public funding for parks within the city. Areas already well endowed with park space continue to receive funding for new parks, whilst those areas with a dearth of greenspace, park development is still comparatively poorly funded. This has serious implications for park planning in Los Angeles and for the equitable provision of greenspace throughout the city.

Park Activities and Management

Park management must accommodate the wide variety of activities pursued by users with diverse attitudes and values while at the same time mediating conflicts among these groups. In this final part of the literature review, we examine some of the models that have been suggested for managing user conflict, differing expectations among park patrons and competing expectations with regard to park utilization. One current theoretical framework for park management that is receiving considerable attention is the ecosystems management model. It shares many characteristics with other management strategies being used internationally and in domestic activity management and conflict resolution and presents itself as a model worthy of consideration for the Santa Monica Mountains National Recreation Area.

Management strategies

The most important recent theory of park management is ecosystems management. The defining quality of ecosystem management, as stated by Lope and Dunstan (1996), is that natural resources and social conditions are conceived of as a dynamic system, rather than a static set of individual factors. In a review of the development of the ecosystem management concept and its application to parks, Agee (1996) accepts the goal of park management put forward by Grumbine (1994), of "preserving native ecosystem integrity" using management strategies that adapt to new conditions and challenges. This approach is also applied to conflicts among user groups and outside groups, such as neighboring property owners. Consensus and cooperation are stressed, and the role of park managers is to attempt to find a solution that meets the needs of all parties (Agee 1996).

In practice, park managers must address both the technical problems of different groups sharing space as well as clashing conceptions of recreation and parks. Lieber and Allton

(1983) suggest that, given the incompatibility of certain activities based on technical preferences, such as trail surface material, parks should include multiple single use trails with common access points and terrain rather than multiple use trails. However, parks management can be equally effective in mediating conflicts based on differing conceptions of recreation, such as that between snowmobile riders and skiers (Jackson and Wong 1982) and that between traditional and nontraditional users (Hester, Blazej and Moore 1999), or other conflicts rooted in cultural differences. During the 1990s, the United States National Park Service successfully addressed conflicts around rock climbing on Devils Tower National Monument, a site sacred to many Native American groups. Through the process of collaborative conflict resolution, where all concerned parties were involved in negotiation with each other and the Park Service, a voluntary ban on climbing was agreed to that has effectively diffused a cultural conflict through mutual understanding (Dustin and Schneider 2001). An extension of the ecosystem management concept, this approach to conflict resolution has great potential for park management.

Other management strategies in use around the world attempt to strike a balance between ecological preservation and visitor activities while developing an understanding of how each influences the other. The United States National Park Service's Visitor Experience and Resource Protection (VERP) project determines "a set of desired ecological and social conditions" for an individual park and, using regularly collected ecological data and visitor surveys, monitors whether the ecology or recreational experience of the park is being harmed through overuse (Flint 1998). Graham, Nilsen and Payne (1988) explain a similar management strategy developed earlier by Canada's national park system, named the Visitor Activity Management Process (VAMP), which they suggest will allow the park system to take a marketing approach to park management. Looking at park planning in the international arena, Lomax (1988) has described how New Zealand addresses economic, ecological and social concerns over tourism in national parks by incorporating the national, regional and local levels of government administration into a system of planning that balances large scale priorities and the needs of individual groups of citizens.

In each of these strategies, and ecosystem management in general, effective collection and application of data concerning user activities, preferences and conflicts is critical to evaluating park management and procedures. The data provided by the SMMNRA survey should help determine to what extent the goals of the trail management plan are being met and what changes in the plan may be necessary.

Managing park activities

Activity choices are based on particular attitudes towards recreation and parks and have important implications for park management. For example, Noe (1978), in a study of youth attitudes towards parks, found that positive experiences with parks personnel gave youth, particularly young women, more confidence in the ability of parks to provide "solitariness," a common activity sought by youth (Noe 1978). In a similar study with college students, Galloway and Lopez (1999), found that individuals with "sensation seeking" personalities conceived of recreation as an opportunity for excitement and new

experience. Thus the college students preferred activities in national parks such as encountering wildlife and visiting remote areas of parks. The authors suggest that future research might allow park managers to use personality based marketing techniques to attract visitors to particular activities. Evidence that this approach can be effective is given by Shultis (1989) who documents the correspondence between the activities pursued in New Zealand's national parks and the images of New Zealand's parks put forward in international tourist marketing campaigns, indicating the campaign had attracted visitors with particular recreational attitudes.

Attitudes, however, are not the only factor that must be considered in activity management. Hammitt, Knauf and Noe (1989), in a survey of horseback riders at a national park in Tennessee, found that experience level, as determined objectively by the researchers through a questionnaire, was inversely related to a desire for more equestrian facilities and programs. However, this relationship was not found when subjects were asked to subjectively rate their own level of experience. This study demonstrates both that user experience is an important factor in park use, and that user perception of their own experience and abilities can sometimes be misleading, an important issue to consider in interpreting the results of the SMMNRA survey. How much of a role in park planning different types of measures, such as user attitudes and experience, should play, and how these measures can be accurately gauged, is an important target for future research.